

Work Order ID 115513

April-02-14 11:15:58 AM

115513

Page 1

Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Tube Assembly
 Start Date: 4/02/14 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/16/14 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 14-04-02 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3391	I								

100 0.00
100 MORI SEIKI CNC LATHE LARGE
 Mori Seiki Memo 0.00
 Mori Seiki CNC Lathe Large Turn as per Folio FA599 Rev: AL & Dwg D3391 Rev: L1
 ****REMOVE STEADY REST AND MACHINIG MARKS****

110 0.00
110 QC2- Inspect parts off machine FAI/FAIB
 QC Memo 0.00
 Quality Control
 DAS
 27
 9-89

112 0.00
112 QC5- Inspect part completeness to step on W/O
 QC Memo 0.00
 Quality Control

1 Ø KE
14-04-03
mm
14/04/07

Das

12

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Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150		0.00							
150	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803								
160		0.00							
160	BENDING MACHINE - SKIDTUBES								
CNC Bend 1	Memo	0.00							
CNC Delta 100 Bender.	Form as per Dwg D3391 Using Bend Prog 3391025								
170		0.00							
170	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									

H-4.15

DAS
03
8-89

DD 74-4-29

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02.14/04/30

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Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		570P 14/4/30					
200 *200* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00		14-5-1 JLL/OBL					
210 *210* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00							OK 14/05/45

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Quality Control

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
235	Pressure Wash per QSI005 4.3	0.00				1	7/16	146-11	
235									
HandFinish	Memo	0.00							
Hand Finishing	AND REALODINE AS PER PAR09-043								
240	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				1	147-16		
240									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 330 OVEN TEMPERATURE: 320 FINISH TIME: 4.00								
250	QC3- Inspect Part Finish	0.00				1x	11	10/07/17	
250									
QC	Memo	0.00							
Quality Control									

DAS 34 9-89

DAS 15 9-89

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Item ID: D3391-025

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Tube Assembly

Start Date: 4/02/14 Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/16/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	HandFinishing	0.00							
260	HandFinish	0.00				1x	d	yl	14/07/17
Hand Finishing	Memo								
	✓ 1-Install inserts as per Dwg D3391								
	✓ 2-Install Aft Cap as per Dwg D3391								
	A/ R Sikaflex-241/-291	AA129457							
	Sikaflex expiry date:	1456							
	3- INSTALL WEARPLATES AS PER DWG								
270	QC5- Inspect part completeness to step on W/O	0.00	DAS						
270	QC	0.00	27						
Quality Control	Memo		9-88						
			MH118						
280	Identify as per dwg & Stock Location: wlo	0.00							
280	Packaging	0.00							
Packaging	Memo					1x	d	yl	14/02/12
									</

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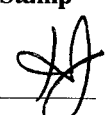
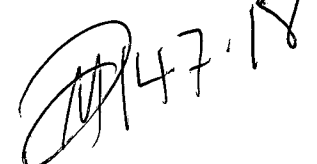
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Item ID: D3391-025 Accept ***N900040100*** Setup Start ***NS1***
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Required Date: 4/16/14 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
290	QC21- Final Inspection - Work Order Release	0.00							
290									
QC	Memo	0.00							
Quality Control									

14/7/21 
 47.18

Picklist Print

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Work Order ID: 115513

115513

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM
 IPP rev D 07.03.20 revF dwg EC
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H
 11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4095-047		Manufactured	No			260	Each	18.0000	1	1			
D4095-047													
Wearpad Assembly													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP001		18							
				102241		2							
				108289		16							
D4095-049		Manufactured	No			260	Each	13.0000	1	1			
D4095-049													
Wearpad Assembly													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP001		12							
				109670		12							
				FP002		1							
				102216		1							
D6014-090		Manufactured	No			100	Each	69.0000	1	1			
D6014-090													
ALUMINUM EXTRUSION													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				LG003		69							
				79742		17							
				86063		52							

Picklist Print

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115513

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

230

Each

300.0000

4

4

D3670-4-200

Bushing

DC 14/05/05

Location

Loc Qty

Loc Code

FG

10

87709

10

LG001

290

103880

39

109108

242

96240

9

D2646

Manufactured No

270

Each

75.0000

1

1

D2646

Aft Cap

all works

Location

Loc Qty

Loc Code

FG

4

85848

2

90495

2

FP001

71

103306

14

107857

1

110816

18

113830

38

V I

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Shop Packet Print

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Picklist Print

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Work Order ID: 115513

115513

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270

Each

1,420.000

2

2

D3672-1

Phenolic Washer

all w/03/17

Location

Loc Qty

Loc Code

FG	10	
85222	10	
ST060	1410	
103845	4	
112218	500	
113581	500	
93886	224	
<u>99099</u>	182	

ALS4-1032-130

AELS4-1032-130 Purchased

No

260

Each

9,937.000

14

14

ALS4-1032-130

Rivnut

all w/03/17

Location

Loc Qty

Loc Code

FP001	9832	
<u>M128649</u>	9832	
ST279	48	
M128211	48	
st510	57	
M126109	57	

v.14

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Work Order ID: 115513

115513

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

AELS8-1032-225

Purchased

No

270

Each

1,490.000

8

8

ALS4-1032-225

Rivnut

YH 4/07/14

Location

Loc Qty

Loc Code

FG

30

M127028

30

FP001

1000

M128649

1000

ST280

426

M127028

10

M128179

416

st555

34

M127092

34

VB

AN3C4A

Purchased

No

270

Each

2,208.000

6

6

AN3C4A

Bolt

YH 4/07/14

Location

Loc Qty

Loc Code

FG

20

122814

20

ST350/513

1000

M128606

1000

ST512

3

124221

3

ST513

1185

125388

122

M127410

1

M127832

62

M128634

1000

M128879

VC

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Picklist Print

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Work Order ID: 115513

115513

Parent Item: D3391-025

D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 4/02/14

Required Date: 4/16/14

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased

No

270

Each

705.0000

4

4

AN3C5A

Bolt

**

91 14/07/14

Location

Loc Qty

Loc Code

FG

5

122800

5

11128911

xj

ST350

700

M128057

700

NAS1149C0332R

Purchased

No

270

Each

9,644.000

10

10

NAS1149C0332R

WASHER

**

91 14/07/14

Location

Loc Qty

Loc Code

GA

1005

125654

1005

11129499

x10

ST292

4968

m128591

4968

st510

3671

m126319

61

m127306

2500

m127410

1084

m127831

26

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Shop Packet Print

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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
--	--	---

DART AEROSPACE LTD		Work Order: 115513
Description: Float Skidtube (412)		Part Number: D3391-3
Inspection Dwg: D3391	Rev: I	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.000	✓		tape	LG-25
3.500	+/-0.010	3.508	✓		vern	CNC-08
Ø3.200	+/-0.010	3.199	✓			
Ø3.750	+/-0.010	3.750	✓			
30° x 0.060 chamfer	+/-0.010	30° x 0.060	✓			
88.93	+/-0.030	88.93	✓		tape	LG-25

Measured by: *grigil*

Date: 14/04/06

Audited by: *SHF*

Date: 14/06/01

HAAS Section						
1.526	+0.000/-0.030	1.570	✓		Vern	ML-06
7.500	+/-0.010	7.560	✓		"	
27.750	+/-0.010	27.750	✓		M-type	ML-08
31.750	+/-0.010	31.750	✓		"	
35.250	+/-0.010	35.250	✓		"	
3.300	+/-0.010	3.305	✓		Vern	ML-06
0.200	+/-0.010	0.200	✓		"	
3.520	+/-0.010	3.526	✓		"	
0.687	+0.010/-0.000	0.689	✓		"	
R0.062	+/-0.010	R.062	✓		R-L	
Ø0.484	+0.005/-0.001	Ø.485	✓		Vern	ML-06

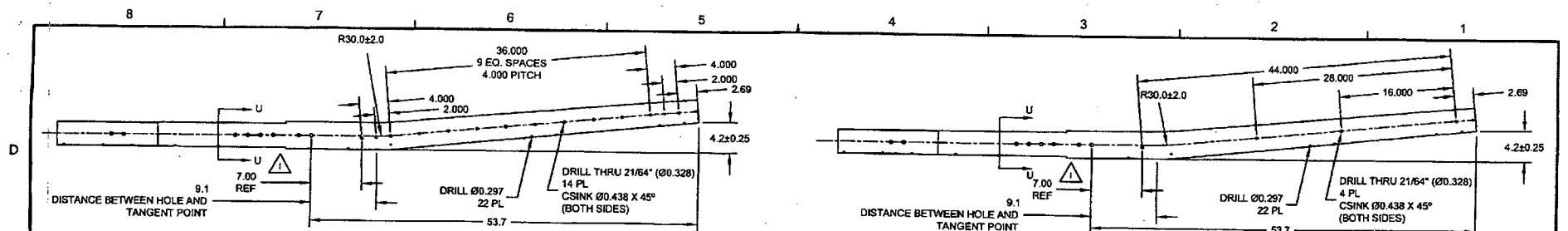
Measured by: *grigil*

Date: 14/04/27

Audited by: *F.K.*

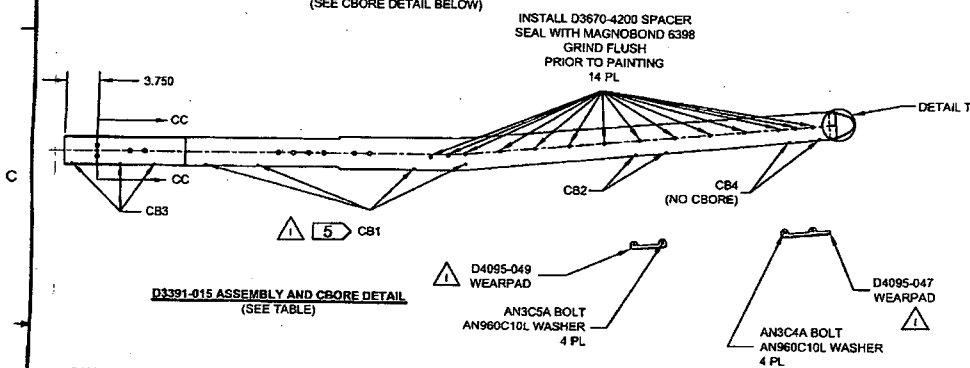
Date: 14/04/28

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	

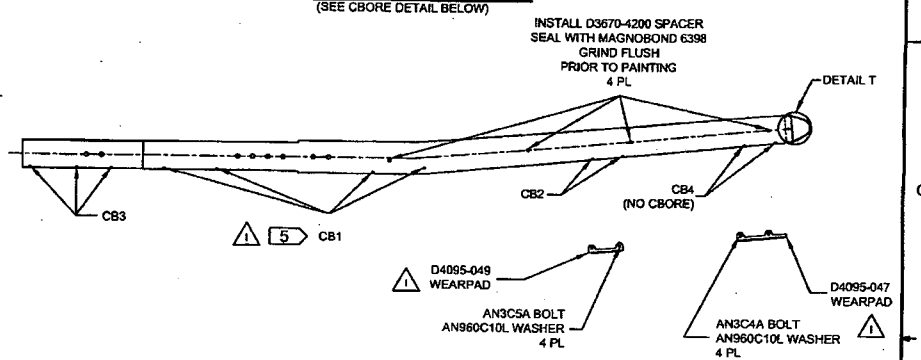


D3391-015 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

D3391-025 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)



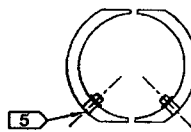
D3391-015 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)



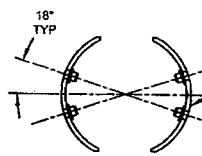
D3391-025 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

D3391-015/025 AFT TUBE ASSEMBLY PARTS LIST

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X	X	D3391-015	AFT TUBE ASSEMBLY
		D3391-025	AFT TUBE ASSEMBLY
1	1	D2646	AFT CAP
14	4	D3670-4200	SPACER
2	2	D3672-1	WASHER
1	1	D4095-049	WEARPAD
1	1	D4095-047	WEARPAD
1	1	D6014-030	AFT TUBE
14	14	AELS-1032-130	INSERT
8	8	AELS-1032-225	INSERT
4	4	ALS4-428-165	INSERT
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
10	10	AN960C10L	WASHER

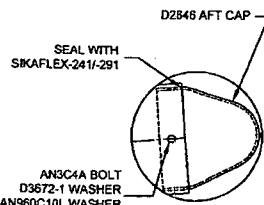


SECTION U-U
SCALE 3X



SECTION CC-CC
SCALE 3X

DRILL Ø0.391
CBORE Ø0.516 X 0.040 DEEP
INSTALL ALS4-428-165 INSERT
4 PL



DETAIL T
SCALE 4X

CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

HOLES MARKED	QTY D3391-015	QTY D3391-025	CBORE	P/N
CB1	8	8	Ø0.430 X 0.170	AELS-1032-225
CB2	4	4	Ø0.430 X 0.170	AELS-1032-130
CB3	6	6	Ø0.430 X 0.040	AELS-1032-130
CB4	4	4	NONE	AELS-1032-130

RELEASED
2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
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